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THE SOURCES OF ICE-SUPPLY.

The importance of obtaining, during the summer and autumn months, absolutely pure water for drinking purposes is well recognized by the sanitarians of the day; but their efforts to gain this *desideratum* have met with doubtful success in many places, while in others they have proved quite unavailing.

The water of rivers and creeks is known to be contaminated with organic matter, and at certain times it is capable of engendering disease of a serious nature.

Spring-water, cistern-water, and well-water under certain conditions will meet the want; but in cities the first is a luxury not to be had except at second hand, while the difficulty of keeping pure the sources which supply the other two is too well known to require comment.

To avoid the dangers lurking in the water obtainable in cities, many persons resort to the sensible practice of drinking nothing but melted ice during the unhealthy season; and while this is perhaps the best thing that can be done under the circumstances, the water thus procured is often notably impure. We called attention, not long since, to the popular fallacy that freezing will purify water, and showed how an alarming endemic at Rye Beach (N. H.) Hotel was found to be directly traceable to ice which had been cut from a pond and used for drinking purposes. So it would appear that in a sanitary sense pure ice-supply is a question of scarcely less importance than pure water-supply.

The ice of our northern lakes, when *bona fide*, meets all the requirements of the case; but when it becomes known that much of the so-called northern-lake ice is cut from the small rivers and streams of upper Illinois and Indiana, the question is again opened. Of course such sources of supply are not open to the objections that would be naturally made to ponds and sloughs; but the surface-drainage of the surrounding country finds its way into these streams, and must render the water to a greater or less degree impure.

We have frequently seen in the bottoms of the Kankakee, after a rain, sloughs which were little more than infusions of manure; and these were all drained into this river, which is far-famed as one of the sources of northern-lake ice-supply.

Again, any one who has traveled from Joliet to Chicago on the St. L., A. & C. R. R. can not have failed to notice the long line of ice-storehouses which stretches for miles along the banks of the Des Plaines River. This beautiful stream is one of the sources of the Illinois. It runs through miles of rich prairie-land, and formerly drained nothing worse than the many farmers' barnyards and a dozen thrifty villages along its banks; but now, alas! it is disgraced for a considerable part of its course by the companionship of the Illinois & Michigan Canal, the outlet for the sewage of Chicago—a sluice of filth which might well put in a claim for rivalry with the Thames after London is passed. Not a fish dares venture into its water; not a stranger approaches its bank

without holding his nose; and upon either side of it is a strip of country where filth-diseases abound—diphtheria, for instance, being a perpetual heritage to the unfortunate inhabitants.

A curious situation for the sanitarian to contemplate: On one side is the loveliest of the "laughing rivers that run in haste to form the Illinois"; upon the other, and at a higher level, the open sewer of a mighty city rolls its stinking sheet of suspended filth sluggishly on to the same destination, and between the two a narrow strip of land covered with houses wherein is stored the ice for Chicago.

It may be urged that there is no surface communication between the waters of the river and the canal; but who can doubt that there are many subterranean courses of contact; and at times of freshet, when the Des Plaines overflows its banks and the canal is high up in its walls, there is doubtless a commingling of the waters at some points above ground. Besides, if direct communication could be proved to be impossible, who will say that nightly the clean water of the river does not absorb myriads of disease-producing germs from the vapors and exhalations that arise from this uncovered sewer? All the laws regulating the diffusion of microscopic organisms testify to the truth of the proposition; and if there is any warrant for the statement that diseases of a zymotic character can be propagated through drinking-water, the dweller on the banks of the Des Plaines, from the point where the canal first approaches the river to its mouth, had during a fatal endemic in Chicago better say his prayers before placing a cup of its innocent-looking water to his lips.

We believe that the ice-supply of Chicago is chiefly derived from this source; and, if so, does it not account to some extent for the present unusual bad health of that metropolis; and would not their sanitary officers, while trying to solve the mystery of this, do well to look into their water-coolers before submitting the city to the expense of extending the great tunnel several miles further out under the lake?

It may be that they are too shrewd to use this ice in that city of wise doctors and expert sanitarians; and if so, it all the more plainly points the moral to what we have to say; for in that case the ice is sent to us here in the South; and the ice-wagons that daily stop at our doors with their pictures and titles, so suggestive to the overheated brain of cooling potions drawn from silent coves where the limpid waters wash the shining rocks and dimple o'er the sparkling sands that skirt the frosted slopes of the far-off lake-side, may be distributing but crystals of dilute Chicago sewage, or at best of water tainted by the seepage of innumerable manure-heaps, slaughter-pens, and privies, which has drained into the streams from the nearer country-side, wherein bacilli and micrococci, specific and non-specific, may hybernate but to wake from their winter's sleep upon the melting of the ice, and proliferating in myriads, contaminate the cup and imperil the health of the drinker.

We are satisfied that the profession is by no means awake to the importance of keeping drinking-water free from microscopic life of all kinds. In dipping for the anacondas and moccasins which sometimes infest the water they use by far too coarse a net, and the smaller but by no means harmless snakes are allowed to wiggle through its meshes.

It is admitted that the specific bacteria taken in the drinking-water are competent to produce enteric fever and probably cholera, epidemic dysentery, and other serious affections; but minor disorders, such as dyspepsia, diarrhea, "biliousness," headache, and malaise, which the non-specific bacteria, it is believed, are capable of engendering, are attributed to other causes. We have this season seen several cases, and have now under treatment one of choleraic diarrhea in a patient who sleeps at least forty feet above the surface of the ground, and has for three months drunk no water but the drippings of the northern-lake ice.

Without going further into detail, if the

foregoing deductions are sound, what is the remedy? We answer, artificial ice. It is now possible to manufacture this article so rapidly and at so low an expenditure of capital that it can successfully contest the market with the natural ice, no matter how ample may be the facilities of the natural-ice companies for gathering and transporting their commodity. Water absolutely free from any trace of organic matter can be secured in most sections of the country through springs or deep wells, and frozen upon the spot, delivered to the consumer at a moderate expense.

Thus the dweller in our semi-tropic States can mingle its pure crystal with his beverages without misgiving; and while he thereby gains refreshment and strength for ever-renewed battle with the zymotic distempers that march into his domain from the South, he can congratulate himself upon having at last secured a wall of defense against the filth-diseases of the North.

THE PRESIDENT'S SURGEONS AND THEIR CRITICS. — The President's medical attendants labor under peculiarly embarrassing circumstances in this, that they are compelled to treat their case, so to speak, under the eye of the whole world. The high official position of the patient, the fiendish attempt upon his life, and the great issues depending upon his recovery or death, have carried the witnesses far beyond that state of sober conservatism which should characterize all comments upon the management of such a case; and the surgeons in attendance have been submitted to much unfavorable criticism by the secular press, while in too many instances the medical press has put in a word of censure.

It should not be forgotten that several eminent surgeons are employed in the case. And the unprofessional critics should remember that while these gentlemen do not know every thing, they probably do not stand in need of advice from those who know nothing of medicine or surgery; and the professional critics might on reflection see that it is neither graceful nor ethical to condemn at a distance and upon theoretical grounds the movements of professional brethren (most of them of acknowledged ability) who are upon the ground, and noting the symptoms from day to day, are doing all that their judgment warrants in the case.

Original.

SOME NOTES ON THE RECENT OUTBREAK OF DIPHTHERIA IN NORTHERN ILLINOIS.

BY WILLIS I. COTTEL, M.D.

For the past two years diphtheria has been endemic in this section. Along the line of the Illinois & Michigan Canal it has been especially prevalent and virulent; so much so as to induce a general belief that the canal exercises a decided influence in the origin and upon the character of the disease.

A few years ago this canal, which connects Lake Michigan with the Illinois River, was deepened so as to cause a direct flow of the water of the lake through the Chicago River and the canal, the object being to obtain a more rapid outlet for the sewage of Chicago, and to prevent the contamination of the water-supply of the city, which is obtained through the famous tunnel which extends over two miles into the lake. This work converted the canal into an open sewer, and its waters and the waters of the Des Plaines River, with which it unites at Lockport, into a stream of filth disgusting to sight and smell, till its offense is mitigated but not destroyed in the larger waters of the Illinois, fifty miles from Chicago.

The first effect of this inflow was to destroy the fish in the Des Plaines River. For miles their carcasses covered its banks.

In a city the size of Chicago the germs of epidemic and infectious diseases always exist, and the sewerage of such a city furnishes a convenient channel for their wide dissemination.

Medical men along the line of the canal noting the alarming increase of diphtheria are almost unanimous in ascribing its prevalence to the condition of the canal, and decided action in the matter has been taken to induce the State legislature to compel

the city to find some other outlet for its drainage.

During the past year diphtheria has been unusually virulent and fatal in the canal- and river-towns—Lemont, Lockport, Joliet, and Morris. Beside these, all the country within the scope of contamination has suffered severely.

With us, situated twelve or fifteen miles from the canal, the disease has been of a milder form, less fatal, and more amenable to treatment. In twenty or more cases coming under my observation there were but four deaths, two dying of obstructive laryngitis; and were it not for the fact that with these patients I had in the same house cases of well-marked diphtheria undergoing convalescence, they might have been diagnosed as true croup. The invasion of the larynx was slow, the febrile action not marked, and dyspnea gradual. Death resulted in one case on the fourth and in the other on the sixth day. The temperature never ranged above 102°, and near the termination it fell to below normal. Alarming symptoms developed only during the twenty-four or thirty-six hours preceding the fatal issue, both patients being strong and able to sit up until almost the last moment. In one case the exudation covered the fauces, in the other only a few isolated patches of diphtheritic membrane were observed.

The third case was truly malignant, the patient, a boy of seven years, dying within twenty-four hours with all the symptoms of diphtheritic blood-poisoning. The fourth case was complicated with scarlatina. The whole surface of the skin was covered with an erythematous eruption, the temperature stood at 107°, and the glands of the neck were greatly swollen. The exudation was extensive and very thick and tough. This was the only fatal case in which albumen could be found in the urine.

Dr. Curtis, of Joliet, informs me that with him laryngeal diphtheria has been rare, only one case being observed in the large number treated by him. From my own observation I will venture the assertion that many of the deaths reported as caused by membranous croup in this region were in reality from diphtheria. I have known of several cases diagnosed as true croup, and dying, returned as such when the previous clinical history, taken together with the prevalence of diphtheria in the neighborhood, left but little room for belief that the false membrane was croupal.

The line of treatment advised by Dr. J. Lewis Smith is the one in general use in this section of country and has proved very successful. Alcoholic stimulants in almost unlimited quantities; quinine in large doses as general treatment; and chlorate of potassium with muriated tinct. iron and fluid ext. hydrastis canadensis for a gargle.

Dr. Curtis reports good results from jaborandi and pilocarpin and the application of carbolic acid, liquefied by heat, to the tonsils. Salicylic and carbolic acids have been administered internally with varying success. I have used the following prescription with gratifying results, not only in this disease, but in all inflammatory affections of the throat, varying the quantity to suit the age and condition of the patient.

℞ Acid. carbolici	gtt. v;	0.30	fl.Gm.;
Acid. boracici ..... }	āā ʒ ij;	8.00	"
Fl. ext. hydrast. can... }			
Glycerin.....	ʒ j;	30.00	"

M. Sig. Dissolve in two thirds of a cup of boiling water; sweeten, and when cold give a quarter to half a teaspoonful frequently, say every half hour.

If the patient is asleep, it may be given without waking him by pouring it slowly into the mouth.

If there is much local swelling, a flaxseed poultice will give comfort and be of benefit. Oiled silk over goose-grease and kerosene in equal parts, a rag greased with lard, or fat pork, may be used for external applications.

When the fever is high I give aconite and gelseminum, and if the pulse is fluttering or feeble, digitalis. In giving the two first of the above-named drugs with veratrum or any other powerful arterial sedative, small and oft-repeated doses secure the best results. Fluid extracts of aconite or gelseminum, or, better still, the two combined in equal parts and given every fifteen or twenty minutes, in doses of one sixteenth of a drop to the teaspoonful of cold water, will reduce the temperature in a few hours and allay thirst.

By this mode of administration the prostration so often observed during the exhibition of these powerful drugs in the usual doses, is avoided. At the same time I employ some form of alcohol in liberal quantities. It steadies the pulse, supports the patient's strength, and seems not to counteract the influence of the sedatives so readily in diphtheria as in other affections.

In treating diseases which have a rapidly exhaustive tendency it has been a matter of observation with me that a medicine exhibited in small and frequently-repeated doses will often work wonders. Taken thus, slowly and well diluted with water, it gives the pa-

tient no annoyance; the full action of the drug can be obtained in the desired time, and a good opportunity is thus given the physician for studying its effect, better, I think, than that afforded by the usual method of medication.

I am indebted to the homeopaths for the hint which led me to adopt this way of prescribing certain medicines. Pretending to give infinitesimal doses they have, by using concentrated tinctures and fluid extracts of powerful drugs, after the method above described, been enabled to get the full therapeutic effect of their medicines, and so to successfully compete with the regular practitioner, their patients not suspecting the artifice. The method meets all the requirements of the case, and besides enabling the regular physician to outdo the homeopath upon his own ground, will be found by any who will give it a trial an efficient and satisfactory mode of medication.

I send you a communication from Dr. Hand, of Morris. He lives upon the line of the late endemic, is a close observer, and a sound and successful practitioner.

BRAIDWOOD, ILL.

Dr. W. I. Cottel: MORRIS, ILL., March 15, 1881.

DEAR SIR—In reply to your recent inquiries addressed to me relative to the endemic of diphtheria which has prevailed here so extensively during the greater portion of the last twelve months, I will state that the first malignant, though not first fatal, case occurred during the latter part of April, 1880, in the person of a very healthy young lady, whose social and sanitary surroundings were in all respects good. She died of sepsis and asphyxia on the fifth day. About one week later twelve others, all children under twelve years of age, and living within fifty rods of the first case, were seized almost simultaneously. Of these more than half died—some within forty-eight hours from the attack, others from septicemia at periods ranging from one to three weeks. From that time until now the disease has spread irregularly and with varying degrees of severity to every part of the city and to a considerable extent into the adjacent country; often through recognized sources of communication, but not infrequently without any such source.

I can not attempt a detail of its progress and character, but will submit some general conclusions which my experience and observation have led me to accept as applicable to this disease as it has manifested itself here, to wit:

That it is highly contagious, being transmitted many miles through the open country by those not affected with the disease in their own persons, going from its immediate contact to places in the country where it had not appeared before.

That its type and prevalence are determined more by family idiosyncrasies than by all other observable causes.

That susceptibility to the disease varies in the same individual at different times; several members of a family being its victims at one visitation, while the remaining ones escape for the time, to be seized at a subsequent period.

That one attack of the disease gives no immunity from a subsequent one, but rather predisposes to it.

That what are termed "sanitary surroundings," general and special, have nothing to do with its prevalence and type. (In this statement I would not include the prevailing epidemic influence, necessary food, shelter, and medical succor.)

That prompt, abundant, and continuous alcoholic support stands first in the list of curative agents, and will often abort an attack that at first threatens to be fatal. The same may be said of quinine, though much less emphatically.

That when these remedies have failed to abort the disease, a persistent continuance of their use—especially the alcohol—in connection with iron and chlorate of potassa, has resulted in a much larger percentage of recoveries than when this course was not adhered to.

That when the larynx and trachea are the sites of the diphtheritic membrane a persevering inhalation of lime-water vapor gives the best promise of saving life.

That chlorate of potassa, used freely and continuously from the onset to the abatement of the disease—used as a wash and swallowed—does not induce nephritis. Not one of the one hundred and thirty cases coming under my care, in every one of which the chlorate was freely administered, exhibited any indication that this remedy was hurtful.

That *frequent* washing of the local lesion of the affection greatly lessens the danger from septic absorption.

As a short summary of my experience I will state that the whole number of cases treated by me during the last ten months is one hundred and thirty; whole number of deaths, sixteen; adults, six—no deaths; cases in which the larynx and trachea were *dangerously* invaded, three; number of deaths of the same, one; loss of distinct articulation (speech), one; loss of the function of deglutition, one; partial paralysis of limbs, one. Each of these three recovered in the course of three months. As a curious fact I will mention that the *poorer* class of the Irish have enjoyed almost complete immunity from the disease; and the Irish population here is relatively large.

I know some of my conclusions are at variance with those generally accepted, but they are such as my observation would seem to sustain.

W. F. HAND, M.D.

Correspondence.

A CASE OF POKE-ROOT POISONING.

Editors Louisville Medical News:

I was called hurriedly, on the night of April 9th, to see Mr. D., who, the messenger said, was suffering with "locked bowel." When I reached the case, at 9 o'clock P.M., I found him writhing in agony, with pulse scarcely perceptible, a pallid countenance, irregular, hurried breathing, and the tongue heavily coated with a brownish fur. He had

been vomiting stercoraceous matter for an hour, was hiccoughing almost incessantly, and complained of a terrible pain in the region of the ilio-cecal junction. On examination I found a hard lump in that place. I immediately ordered cloths, wrung out of hot water, to be applied and covered so as to retain the steam. I also gave him one half grain sulph. morphia by the mouth, and an injection of starch-water (one quart), into which I incorporated one dram of spts. turpentine. The effect was almost magical. The patient said he felt easy the moment the enema was given. In twenty minutes he had a good, free action, his pulse returned to a point a little above its normal rate, the hiccough ceased, the face assumed its natural color, and as the patient expressed it he was "all right."

The history of the case showed that he had been taking a saturated solution of pokeroot in doses of a tablespoonful gradually increased. An hour after the last dose he had the attack above described. The recovery was rapid and complete.

GLASGOW, KY. R. E. GARNETT, M.D.

Formulary.

THE TREATMENT OF BILIARY CALCULI.

Dr. Bouchardat (*Le Progrès Méd.; Lond. Pract.*) in treating this affection requires the patient to abstain from nitrogenized foods in excess, and prescribes a diet of vegetables, those containing potash rather than soda being preferred.

An alkaline course of treatment may be prescribed indirectly through the malates, tartrates, and citrates which are found in fruits.

Before breakfast a tea- or tablespoonful of tartrate of potassium and sulphate of sodium, equal parts, should be taken in a glassful of sweetened lemonade. Moderate exercise is enjoined, and the functions of the skin should be stimulated by washing and rubbing with the hand moistened with a few drops of perfumed oil.

One to three baths should be taken every week, each bath containing—

Potassium carbonate.....	℥ iij ℈;	100.00 Gm.;
Ess. lavender.....	ʒ ss;	2.00 "
Tinct. benzoin.....	♏ lxxvij;	5.00 fl.Gm.

This should be followed by prolonged rubbing.

To facilitate expulsion of the calculi he gives turpentine and ether between meals for ten days. To prevent the formation of gallstones a pill containing one decigram (a grain and a half) of tartrate of potassium and lithia should be taken morning and evening before meals for ten days. For ten days more—

Syrup of aperient raisins..	fl.ʒ xijss;	400.00 Gm.;
Potass. acetat.....	ʒ v;	20.00 "

M. Sig. A dessertspoonful morning and evening before meals.

For ten days longer a liter (quart) of water holding ten grams (one hundred and fifty grains) of sodium potassium tartrate, daily, in solution.

In the spring—

Lettuce juice.... } Chicory juice..... } Dandelion juice, }	āā q. s. ad fl.ʒ iv;	120.00 fl.Gm.;
Potassium acetat...	gr. lxxv.	5.00 "

Take daily on rising for a month.

Lastly, a season at Ponques, Vals, or Vichy is advised.

HYOSCYAMIN IN INSANITY.

Dr. Gay (New York Lunatic Asylum) gives the following in cases of depression bordering on melancholia, and in cases of high nervous excitement with muscular restlessness:

℞ Ext. nucis vom..... } Morph. brom..... }	āā gr. viij;	0.48 Gm.;
Peperini	gr. x;	0.66 "
Hyoscyamiæ.....	gr. iij;	0.18 "

M. ft. pilulæ xxx. Sig. One twice a day for a time, and afterward reduce to one at night.

The dose of hyoscyamin varies from one thirty-second to one half a grain, though as much as three fourths of a grain have been given.

AN ITALIAN REMEDY FOR COUGHS AND INTESTINAL CATARRH.

Elatina is the name given to a substitute for tar-water used in Italy for coughs and intestinal catarrh. Cintlini gives the following formula.

Green pine cones	600	parts;
Olibanum.....	8	"
Balsam of tolu.....	5	"
Resin.....	4	"
Juniper berries	60	"

The ingredients are covered with water, allowed to stand over night, and next morning twelve hundred parts of the liquid are distilled off over a moderate fire. The distillate is filtered and bottled. The dose is a half wineglassful two or three times a day. —*Pharm. Zeit.; New Remedies.*

Pharmaceutical.

MAGNESIA CASTOR-OIL SOAP (RICINOLEATE OF MAGNESIUM).—Mr. Hager directs this to be prepared thus:

Sodium carbonate, crystallized.....	85	parts;
Caustic lime.....	20	"
Castor oil.....	100	"
Magnesium sulphate.....	90	"
Sodium chloride.....	40	"
Water.....	q. s.	
Distilled water.....	q. s.	

By treating the sodium carbonate dissolved in water, seven hundred parts, with the lime after a process similar to that given in U. S. Dispensatory, a solution of caustic sodium is obtained. This being evaporated down to one hundred parts is mixed with the castor

oil; and, kept in a warm place, is stirred frequently until the mixture begins to thicken. This is then treated with forty parts of warm aq. dest., and after letting it stand for two hours with occasional stirring, one hundred parts of boiling aq. dest. are added and two hundred parts of a warm solution of magnesium sulphate and sodium chloride are mixed with it. This is stirred, and the magnesia soap soon appears as a white mass. The mixture is then digested over a water-bath for a half an hour, cooled, the liquid poured off, and the soapy mass kneaded, dried, powdered, and preserved in well-stoppered bottles. The yield is about one hundred parts.

This magnesia castor-oil soap is given in doses of five, ten, or fifteen grams (seventy-five to one hundred and fifty grains, or half an ounce), and is best administered, mixed with sugar, in coffee.—*Condensed from New Remedies.*

[The above preparation ought to be a mild and efficient evacuant; and if it should be found to possess the virtues of castor oil without its objectionable qualities, Mr. Hager is to be congratulated upon having made a valuable contribution to the materia medica. Could not this soap serve as a substitute for the regular castile in preparations where the latter is commonly used; as, for instance, in the *Pil. saponis compositæ*, *Pil. rhei*, etc.?]

ERGOT.—In consequence of the wet summer the yield was plentiful, particularly in Spain. Up to November the price remained regular, but at that time urgent orders from the United States advanced the price, which could have been avoided, since the Russian crop shortly afterward caused it to fall back to the old figures. New York and Boston imported in 1879 sixty-one thousand pounds; in 1880, one hundred and eight thousand pounds.—*Ibid.*

STIGMATA OF MAIZE.—New Remedies says that the proper time for gathering corn-silk is from the middle of August till September, before the silk becomes dry. The remedial qualities of corn-silk are much impaired by alcohol, and for this reason its tincture or alcoholic fluid extract can not be recommended. The best preparation of the drug is an aqueous extract made at as low a heat as possible. For administration a portion of this extract may be dissolved in water and mixed with syrup. Corn-silk yields about twenty-five per cent of extract.

Miscellany.

IS OPIUM-EATING INJURIOUS?—From a letter by Mr. D. H. Cullimore, who it seems has lived in China (British Med. Journal), in answer to this question, we learn that in Singapore, where wages are good, the Chinamen consume opium upon an average rate of three hundred and thirty grains a year for each person. In Java, where the community is small and the wages low, the average is one hundred and forty grains to each person, or less than one half grain daily. The expense of the drug proves to be a barrier not only against its general abuse, but also its universal use in the Celestial Empire.

In many instances of the opium-habit with which he is familiar, the writer observed that the drug did not produce constipation or loss of appetite, even when attended with listlessness and voluptuous reveries. However, its continued use will eventually end in constipation, loss of appetite, mental decay, and sexual impotency. Though the ill effects of the opium-habit are not generally recognizable among the masses, the casual observer will see in any gathering of well-to-do China men a few who show most distinctive features of the confirmed debauchee.

He has never known a death of which opium could be said to be the immediate exciting cause; but remembers a few cases in which a fatal result was precipitated by an active and excessive debauch on opium in conjunction with *bang*, an extract of Indian hemp.

GYNOCARDIC ACID IN THE TREATMENT OF SKIN-DISEASES.—Mr. Wyndham Cottle, F.R.C.S.Eng., after a successful experience with chaulmoogra oil in eczema, lupus, etc., experimented with gynocardic acid, which he assumes to be its active principle. The following is his summary of its effects: When given internally it appears to be assimilated and rarely produces nausea—differing in this respect from the oil. Improved nutrition commonly follows the use of either. It is especially beneficial in diseases depending on malnutrition. Rheumatism, gout, and some forms of syphilis are sometimes improved rapidly during the use of the oil. The acid, unlike the oil, can be used in the form of pills. About three grains of the acid may be given daily internally; and for external use fifteen to twenty-five grains to the ounce of vaseline [cosmoline or petrolina, etc.] may be employed.—*Brit. Med. Jour.*

THE NEW YORK AMBULANCE SOCIETY.—Dr. Benjamin Howard has recently had opportunities of studying the working of this society. The general hospitals are placed at the service of the police as far as regards street accidents and other emergencies (British Med. Journal).

On the occurrence of a surgical or medical emergency, information, whether by a policeman or civilian, is at once given at the nearest police-station; this is telegraphed to the central headquarter police-office. The officer receiving the telegram can see on a chart before him in which hospital-district the emergency in question has occurred, and telephones the call and address to the hospital to which that district belongs.

While Dr. Howard was talking, one day, upon this subject in his office with the superintendent of the recently-built New York Hospital, the conversation was stopped by a shrill whistle. A telephonic message having been received, and another message having been sent through another tube as quickly given, the superintendent remarked that the message was an emergency call. Following him on a run down a flight of stairs, and under a covered way across an inner court-yard, a surgeon was seen to step into an ambulance, which passed almost noiselessly along the concrete way under the arch and into the street. As the superintendent had telephoned both driver and doctor, before he had explained to Dr. Howard the nature of the interruption in their conversation, while these were putting on their hats, the ready-harnessed horses had been put in and the doctor had got the start of them.

The ambulance, on returning, comes in from an opposite direction and stops under the large *porte cochère* on the opposite side of the court, at the door of the reception or accident-ward. This room is supplied with every surgical convenience—operating-table, instruments, dressings, hot and cold water, and beds, while opening into it are both bath and small bedrooms. Thus, according to expediency, the patient may remain where he is a longer or shorter time, or be put into an adjoining room, or be transferred direct from the table to an ordinary ward above. If, on the other hand, the case be a trivial one, the ambulance will take him at once, or when ready, to his own home.

The ambulance-surgeon, immediately on returning to the hospital, notifies the house-surgeon or house-physician, according as the case may be, surgical or medical, who then takes charge of the case.

REVELATIONS UNDER ETHER.—Under this heading Tom Bird, M.R.C.S., relates, in the London Lancet, that his first case of ether-mania was that of a man, between forty and fifty years old, who had undergone a simple operation for which he required to be deeply anesthetized. Gas and ether had been used, the operation lasting from ten minutes to a quarter of an hour. For two hours he literally confessed. As he expressed it in the evening, "I knew what I was saying perfectly. I knew that I ought not to say it, but I could not help it, and you ought not to have left her [the nurse] in the room." He met with his second case some eighteen months afterward. It was that of a young married woman, a hospital patient, whom he saw half or three quarters of an hour after the operation. She was recounting to her mother (not present), in the clearest tones, subject-matter that he did not think she would ever have confided if conscious; it was a subject that had evidently been laid by in memory. For a quarter of an hour he tried to divert in every way her attention to her present condition, insisting that her mother was not present, without the slightest avail; she was totally oblivious of every thing except her story. The patient was a lady of education and refinement, and her language had not the slightest fault in its expression, but her bedroom was a "palace of truth."—*London Lancet.*

DEATH FROM EMPLOYMENT OF A CARBOLIC-ACID SOLUTION.—Dr. Bradford relates, in the Boston Med. Journal for April 7th, the case of a boy, five years old, who had been under treatment for hip-joint disease during six months. A cold abscess having formed in the thigh, this was evacuated, and the cavity hyperdistended by a solution of carbolic acid (one to forty), which was then allowed to flow out, pressure being used to secure its full discharge. Vomiting supervened, and the boy, soon becoming enfeebled, died in collapse two days after.—*Med. Times and Gazette.*

EYE-DISEASE IN COLLIERS.—Mr. Sykes, of Mexborough, has seen numerous cases of a peculiar form of blindness affecting colliers. It begins with failure of the sight at dusk, and is chiefly manifested by great nystagmus, progressive blindness, and insensibility of the pupils to light. When such patients give up their vocation and take to open-air pursuits, complete cure, or at the least great improvement, follows.—*British Med. Journal.*

PROPERTY DEARER THAN LIFE.—Sir Jas. Simpson used to relate an anecdote of a farmer who bitterly complained that for attendance on himself and his child his medical man charged him three shillings and sixpence a visit, his cow-doctor only requiring five shillings. This is but in accordance with a well-known peculiarity in human nature. Men are ever readier to be liberal in matters relating to their property than in questions concerning any service of direct utility to themselves. The more that the property is of a "fancy" value the more lavish men become; the more the expenditure relates to public benefit, to "doing good to humanity," the more willful or unintentional parsimony is displayed by those who can give and pay.—*British Medical Journal.*

CHLORAL HYDRATE IN DYSENTERY.—Dr. Curci (New York Med. Record) employs successfully chloral hydrate in the treatment of typhoid diarrhea and dysentery. In the latter disease the remedy is combined with potassium chlorate. Using barley-meal water for a menstruum, he gives the chloral to an adult in from fifteen to forty-five grains daily by mouth. Given by rectum, one dram and a half of chloral to two quarts of barley water will serve for ten clysters. Before administration by mouth a light purge should be given.

Dr. C. states that besides being narcotic, chloral is sedative, astringent, anti-diarrheic, coagulent, and antiseptic. It calms the cerebral centers as well as the sympathetic, which latter above all is affected in dysentery. By reason of its influence over the sympathetic the peristaltic action of the intestines is diminished and the pain relieved.

CHIAN TURPENTINE USELESS FOR CANCER. The result of a trial at Middlesex Hospital, by Dr. J. W. Hulke, F.R.C.S., completely demonstrated to his mind, and convinced all who watched the practice, that Chian turpentine is thoroughly useless as a remedy for cancer, whether of the female generative organs or of other parts. It was administered during several months to several women suffering from uterine cancer. It was not found to check the progress of the cancer, which in spite of it continued its fatal course. In not one instance did the vaginal discharge assume the thick, ropy character mentioned by Prof. Clay. As a reputed anodyne it quite failed to lull pain, and during its use opium was found indispensable. With respect to its alleged hemostatic properties, hemorrhages occurred as frequently and as copiously in women while taking the turpentine as in others to whom it was not given. After trying it in uterine cancer it was given to a woman with an epithelioma of the vulva and of the inner side of the thigh at the junction with the trunk, and to another woman with an epithelioma of the back of the thigh. These cancers being open to ocular inspection appeared very suitable for the recognition of its influence, if any, on the cancerous tissue. It was also exhibited in cases of scirrhus of the female breast, unbroken, and also ulcerated. In not a single instance could any curative influence be discerned.—*London Lancet.*

HAMAMELIS VIRGINICA AS A LOCAL APPLICATION.—Dr. W. H. Netherclift writes to the British Medical Journal concerning "hazeline," the new extract of witch hazel, that a local application in irritable and inflamed piles situated at the margin of the anus, where the remedy can be readily applied, he has never met with its equal. In most of the cases submitted to the treatment the relief was immediate and permanent. His plan has been to have the part bathed in the solution three or four times a day, and a piece of lint dipped in it kept applied to the anus during the intervals. All urgent symptoms have passed away, as a rule, in from twelve to twenty-four hours. In chronic and intractable ulcers of the varicose or eczematous description he has met with excellent results by using the hazeline after the fashion of a water-dressing.

NEURALGIA.—The London Lancet says that neuralgia indicates a low or depressed state of vitality, and since nothing so rapidly exhausts the system as pain that prevents sleep and agonizes both body and mind, it is of first moment that neuralgia incidental to and indicative of a poor and weak state should be promptly placed under treatment and, as rapidly as may be, controlled.

It is worth while to note this fact because, while the spirit of manliness incites the strong-minded to patient endurance of suffering, it is not wise to suffer the distress caused by this malady, as many do, without seeking relief; for it should not be forgotten that the pain of neuralgia is a warning sign of constitutional danger.

BRAITHWAITE'S EPITOME quotes the LOUISVILLE MEDICAL NEWS seventeen times.

Selections.

Jaborandi and Pilocarpin.—The editor of the British Medical Journal gives the following *résumé* of the therapeutics of jaborandi (concluded):

Pilocarpin has been used with success in puerperal convulsions by Dr. Braun, who records a series of cases in which the most striking results were obtained. This mode of treatment has been ably advocated by Fancourt Barnes and others, although Fordyce Barker considers its propriety open to question.

Mr. Macnamara, in his recent work on Diseases of the Bones and Joints, recommends pilocarpin in septicemia and records two very striking cases.

Jaborandi has been employed with success in many chest-complaints. For an ordinary cold or slight attack of bronchial catarrh it is almost a specific. The patient is given a two-dram dose of the strong tincture, or half a grain of pilocarpin, at bedtime. Profuse perspiration is induced, and in the morning he is well. We have employed this mode of treatment in very many cases and with the happiest results. Dr. Berkart and Dr. Mackesy have recently advocated its use in asthma, both peptic and bronchitic. The loss of fluid resulting from the administration of full doses has been found of service in pleuritic effusion. Three cases treated by Dr. Hunt, of the Wolverhampton and Staffordshire Hospital, were reported in the British Medical Journal of May 1, 1880. Dr. Newland speaks highly of hypodermic injections of pilocarpin in pleuropneumonia. After an injection of five eighths of a grain the patient felt greatly relieved, and was able to lie down; his breathing became easier, he had no pain, and slept for four hours. The dose was repeated twice a day for three successive days, when the patient had so far recovered that further treatment was unnecessary.

Dr. Murrell has recently called attention to the use of jaborandi and pilocarpin in the night-sweating of phthisis. He gives details of thirty-three cases in which it was administered with benefit. As a rule, the nitrate of pilocarpin was employed, and it was given by mouth and not hypodermically. The dose, with a few exceptions, was one twentieth of a grain, either in solution in water or made into pills with sugar of milk. It was given only at bedtime, unless the sweating was very profuse, when it was repeated during the night. As a rule, but little improvement was noticed on the first night; but on the second and third nights the sweating was less, and by the end of the week had completely ceased. The perspirations when once checked did not, as a rule, return for many weeks. It was frequently noticed that the jaborandi or pilocarpin eased the cough and facilitated expectoration. Dr. Murrell recommends jaborandi in ordinary winter-cough, giving a full dose one or two nights at bedtime, and then smaller doses three or four times a day for a week or more. In chronic bronchitis, inhalations of jaborandi by a Siegle's spray-apparatus are decidedly beneficial.

Jaborandi has been recommended in diabetes insipidus, and in two cases under the care of the late Prof. Laycock, of Edinburgh, the patients were decidedly benefited by the treatment. In another case, reported by Dr. Ringer, the jaborandi, although given for forty-four days, in no way influenced the amount of urine secreted, while the liquid extract of ergot quickly reduced it to the normal. Good results have also been obtained in diabetes mellitus by hypodermic injections of pilocarpin frequently repeated. In one instance, after each dose, there was a striking diminution in the amount both of sugar and of water excreted, and this diminution lasted several days.

An attempt has been made to introduce jaborandi as an ecbolic, but for this purpose it has found but little favor with obstetricians. Mr. Clay published a case of contracted pelvis in which induction of premature labor was attempted by giving hypodermic injections of pilocarpin, but the result was unsatisfactory; and finally Barnes's bags had to be introduced and the forceps applied. It has been shown by Fancourt Barnes and others that in ordinary labor pilocarpin can not be used in place of ergot. Pilocarpin is sometimes employed to stimulate the secretion of milk in women who are suckling. The whole subject has been discussed in the pages of the British Medical Journal.

Professor Pick, of St. Petersburg, has published the results of two and a half years' experience of the use of pilocarpin in skin-diseases. He usually gives one sixth of a grain in solution twice a day, so as to induce slight perspiration, the treatment being continued for several weeks without intermission. The skin becomes softer and more pliable, scaliness diminishes, and the hair is less brittle. In two cases of pruritis senilis and one of urticaria a cure was effected; but in eczema, psoriasis, and alopecia areata the results were unsatisfactory. These results have been abundantly confirmed by Chadzynski and others. We have it on the authority of Dr. Schmitz, of Cologne, that pilocarpin possesses the peculiar property of stimulating the growth of the hair. It has been given with decided benefit in advanced syphilis. Mr. Lockwood, of the Lock Hospital, recently reported a series of cases treated by this method; and Prof. Lewin, as the result of a number of observations made on thirty-two prostitutes, confirms his results.

Dr. Ortille, of Lille, records a most obstinate case of hiccough in which pilocarpin gave relief after the failure of morphia, electricity, and numerous other remedies. In belladonna-poisoning, jaborandi promises to be of use, provided only that sufficient of the antidote be given. In one case it was found necessary to give hypodermic injections of pilocarpin, in all amounting to six and a half grains.

Treatment of Diarrhea in Phthisis.—By C. Theo. Williams, M.A., M.D., etc., in London Lancet:

The treatment of the first form of diarrhea consists of simply correcting the dietary and ordering a few doses of alterative and purgative medicine, with some alkali to reduce the acidity. The second form, that arising from ulceration, requires very careful attention. The great point to be kept in view is the healing of the ulcers, and this can only be attained by shielding them from all irritable substances and by promoting a healthy granulating action. The treatment in fact resolves itself into three sets of measures:

1. Rest in bed and the administration of only such food as can be quickly and easily assimilated without causing much distention of the intestine or accumulation of flatus. Such as chicken broth, beef and veal tea, milk gruel, blancmange, always combined with liquor pancreaticus, and prepared after the admirable methods of Dr. William Roberts, of Manchester. Dr. Jagielski recommends koumiss specially in these cases.

2. Warm applications to the abdomen in the form of linseed poultices, turpentine stupes, or hot-water fomentations, to reduce the pain and promote a cer-

tain degree of derivation to the skin. If the pain be severe, I have found the application of a small blister over the area of tenderness on pressure, as recommended by Dr. J. E. Pollock, very advantageous. I have noticed in some obstinate cases that when the blister has risen the diarrhea has been considerably reduced, and pain existing in the abdomen at the time has subsided.

3. Internal medicines. When we have reason to believe that the ulceration is slight and confined to the small intestine, the diarrhea may be treated by bismuth and opium, or by some astringents. The liquor bismuthi et ammoniæ citratis (B.P.) is a convenient form, but not always so effective as the powdered carbonate or the nitrate of bismuth in ten- to twenty-grain doses. Dover's powder combined with it in ten-grain doses is often effective. The most powerful astringent is the sulphate of copper in a quarter- to half-grain doses combined with half grain to a grain of solid opium. Of the various vegetable astringents I have found tannic acid in four-grain doses to answer best, far better than rhatany and catechu, but in all cases I combine it with a certain amount of opium to reduce the irritability of the ulcers. Indian bael, especially a preparation of the fresh fruit, is often efficacious in checking the diarrhea if the ulceration be limited. If, however, the ulceration attack the large intestine as well as the small, it is obvious that more local treatment is advisable, and recourse should be had to injections or suppositories. The enema opii (B. P.) administered twice a day is sometimes sufficient, and it may be strengthened by the addition of acetate of lead, four grains to an injection, or of tannic acid, five grains. This is a small injection, and it is doubtful how far its local effect reaches. Where the ulceration is very extensive, and involves the greater part of the large intestine, an attempt ought to be made to apply the remedies more thoroughly to the mucous membrane; and for this purpose injections of larger amount—from a pint to a pint and a half—may be used, consisting of gruel or of starch, or, best of all, of linseed tea, and all containing a certain quantity of opium (thirty to forty minims of the tincture). I would specially recommend the linseed tea, as it appears to exercise the same beneficial effect on the ulcers of the large intestine as it does in follicular ulceration of the throat One of the most obstinate cases of intestinal tubercular ulceration I ever witnessed yielded to linseed tea injections, after almost every other treatment had been vainly tried, the ulcers apparently healing, the diarrhea ceasing, and the patient living for two years afterward and dying of pulmonary lesions. In cases where the stools are very fetid I have added glycerin of carbolic acid to the injection with advantage. In many cases, however, it is desirable to give the large intestine as much rest as possible, and not to stretch the ulcerated mucous membrane through any distention by fluids. In these cases suppositories of morphia (from half a grain to a grain), or of the compound lead one, or of those of tannic acid are indicated, and the treatment of the diarrhea arising from lardaceous degeneration of the intestine is not very hopeful. Where the very channels of assimilation—viz. the villi—have undergone degeneration, as well as the various structures from which the succus entericus is poured out, it is difficult to see how treatment can restore the lost tissues. Dr. Dickinson's researches show that the loss of alkali is the chief characteristic of the disease. Dr. Marcet's analyses show that the chief chemical feature is deficiency of phosphoric acid and potash and excess of soda and chlorine, and on this principle we should give phosphates of potash. When, however, the disease has so far advanced as to reach the intestine, it may be considered beyond any effective general treatment. We must be content to restrain the diarrhea if we can by astringents, the more powerful the better. Tannic acid in from two- to four-grain doses, with dilute sulphuric acid, sulphate of copper, or sulphate of zinc are the most useful, and injections of these substances do some good.

Treatment of Asthma by Electricity.—Dr. Max Schaeffer considers that the best remedy for cutting short an asthmatic attack is the local application of the induced current, which often causes the attack to disappear as if by magic, and is much more efficient than the pneumatic apparatus. According as the seat of the disease appears to be in the higher or lower parts of the nerve, the author applies the electrodes to both sides of the neck, under the lower jaw, about three quarters of an inch in front of its angle, or opposite the thyroid cartilage in front of the sterno-mastoid. The currents must not be too feeble. The patient must clearly perceive that the current goes straight through the soft palate or through the larynx. When the attacks are violent the current should be applied for a quarter or half an hour at least twice daily. As recovery takes place the applications may be shortened until they are at length made only once or twice a week. He rarely applied direct faradization, and found no good from the constant current.

Dr. Richard Schmitz reports the case of a patient, aged forty, who had been the subject of numerous and repeated attacks of asthma for eight years. At the time the electrical treatment was commenced the patient was suffering from a most severe attack, which had resisted all the ordinary methods, and had compelled him to sit for three days and nights without rest. Each attack was preceded by a catarrh, which successively invaded the larynx, trachea, and bronchi, and it was thought that the swelling of the mucous membrane of the respiratory tract might have involved the vagus in its course, and it was therefore considered necessary to direct the induced currents to this nerve. The first *séance* was at eight in the evening; the electrodes were applied over the alæ of the thyroid cartilage and internally to the sterno-mastoid. The current, at first weak, was gradually strengthened. The sitting lasted nine minutes, and the patient was so much relieved by it that he was able to sleep during the greater part of the night. On the next and succeeding days two more sittings a day were given, each of five minutes duration. The good effects continued, and after twelve applications the patient was freed from the attacks of oppression and from the râles which embarrassed his breathing. Since the return of the patient to Hamburg he has had a fresh attack of asthma, which was cured without recourse to electricity; but in spite of this it appears that induced currents are useful, if not in alleviating the affection itself, at any rate in its most painful manifestations, and its effects should always be tried in obstinate cases.—*Deutsche Med. Wochen; Practitioner.*

Uterine Fibroids.—Dr. Gaillard Thomas, in a clinical lecture, after describing a case in which there were several uterine fibroids attended with scarcely any important symptoms, said that he does not know of any cases more likely to entice a young practitioner to give an erroneous prognosis. When he detects tu-

mors like these he thinks that his diagnosis is of the highest importance, and makes a very unfavorable prognosis. The subsequent history of the case, however, falsifies this, and years after he may have the blunder he has made thrown in his face. The inexperienced gynecologist can hardly realize that such a state of affairs can exist in the pelvis without producing the most serious effects. Klob has shown that fibroids of larger or smaller dimensions (many of them quite minute) exist in nearly forty per cent of Anglo-Saxon women who have reached the age of forty. The remarkable prevalence of fibroids in negro women is notorious, and it is quite exceptional to find one in whom one or more fibroids can not be detected. In a negress who died of inflammation of the lungs no less than thirty-five fibroids of all sizes were found. "Thousands of women who are affected with fibroids are in happy ignorance that they have a *tumor;* and in this connection I would offer the following piece of advice to you: When in any case you have made the diagnosis of fibroids, do not inform the patient of the fact unless you are forced to do so; because the very name of tumor is a kind of shibboleth to most women, and it will probably have a very bad moral effect upon her. This should be observed as a general rule, although cases occur in which it is best to make the diagnosis known. It may be objected to this rule that there some instances in which, if we tell the patient that there is nothing serious the matter, the future course of the case will not be in accordance with our predictions; but these are very rare exceptions indeed, and it is always possible for us to exonerate ourselves from blame by stating that the case is an exceptional one."—*Med. Times and Gazette.*

Treatment of Delirium Tremens.—Dr. Villard reports a case of delirium tremens which he treated successfully by means of hasheesh after the administration ineffectually of chloral and opium. Dr. Villard has thus been able to add further testimony as to the value of this remedy, which appears to be less used in France than it is in this country. In the case reported, chloral hydrate in five-grain doses, which was absorbed in ten hours, was useless, while extract of opium in quantities of fifteen to twenty centigrams (two and one fourth to three grains) every twelve hours, continued for two days, was found equally futile in controlling the symptoms. Two dessertspoonfuls of julep, containing fifty centigrams (gr. vijss) of hasheesh, given hourly, was, however, at once found to have a tranquilizing effect.—*Le Progrès Médical; London Practitioner.*

[It would be safer in any case to commence with a smaller dose of the Indian hemp, increasing the quantity till the desired effect should be obtained.]

The Cure of Varicose Veins by Subcutaneous Ligature.—Dr. John Duncan, of Edinburgh, employs carbolized catgut for the radical cure of varicocele (British Med. Journal). The veins are separated from the artery and vas deferens, and a needle armed with catgut is thrust through at the point of separation; it is then reintroduced at the orifice of emergence, made to pass between the veins and the skin, and brought out at the original entrance; the two ends are then firmly knotted together and cut short. By traction on the scrotum the knot is made to disappear entirely, and the punctures are covered with salicylic wool saturated with collodion. The same maneuver is repeated an inch higher, and sometimes a third ligature is advisable. A hard lump of coagulum forms between the ligatures, tender at first, but soon diminishing in size and becoming insensitive. Dr. Duncan treats varicose veins of the leg in the same manner, the introduction of the point of the needle into the aperture of exit of the first puncture and the tightening of the loop of catgut is difficult when there is brawny edema. In such cases the patient should be kept at rest and an India-rubber bandage applied for a few days. A single ligature is not sufficient, and to close the lumen permanently two must be applied about one inch apart. It is essential that no branch be given off in the segment of vein between the ligatures.

Hysterogenic Zones.—M. Charcot calls attention anew to the existence of hyperesthetic points to which he has applied the name hysterogenic zones, which are found to occur so frequently in patients afflicted with the more severe forms of hysteria. These zones occupy a variable position, but though they are differently situated in each patient they are constant for the individual. They occur exclusively on the trunk and are more numerous in front than behind. Those in front are placed laterally and are more often double and symmetrical, while the posterior ones are generally unilateral and median. Finally they are more common on the left than on the right side, the unilateral zones being always on the left. The hysterogenic zones are not equally excitable at all times, for they are more readily stimulated when the convulsive attack is imminent; while the irritability of the spots is lessened, or may even disappear completely when the fit has passed. As a general rule it seems that the stimulus applied to the zones which is necessary to stop a hysterical attack must be much stronger than that which is needed to originate it when a patient has several hysterogenic zones. The convulsion occasioned by the stimulation of one spot may in some cases be arrested by the subsequent irritation of another.—*Le Progrès Méd.; London Practitioner.*

Diffuse Inflammation of the External Auditory Canal.—Mr. E. C. Baber, M.B., of Brighton, in a paper on this subject (British Med. Journal), states that the disease must be distinguished from the circumscribed variety where small abscesses form in the meatus. In diffuse inflammation the walls of the meatus swell uniformly, so that often the smallest speculum can not be introduced. When the swelling subsides slightly a speculum well flattened at the inner end will show the tympanic membrane recognizable only by its position, the manubrim of the malleus and the light spot being hidden by the thickening, through inflammation of the epidermic layer of the membrane. Free secretion often exudes from the walls of the meatus without any perforation existing in the membrane. It is most important to diagnose this complication in healing this disease. For treatment leeching is useful, and care must be taken that the leeches are applied close to the ear. Incision of the inflamed tissues in the meatus is necessary when the case is severe, with danger of the adjacent bone being affected. An hourly injection of from five to ten drops of a solution of acetate of morphia (sixteen grains to the fluid ounce) greatly relieves the pain. In the chronic stage the surgeon should frequently cleanse the meatus with cotton wool. This is less irritating than the syringe. Glycerin of borax is the best lotion for injection.